## (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 9 September 2005 (09.09.2005)

PCT

## (10) International Publication Number WO 2005/081907 A2

(51) International Patent Classification: Not classified

(21) International Application Number:

PCT/US2005/005442

(22) International Filing Date: 18 February 2005 (18.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/546,498 60/641,719 20 February 2004 (20.02.2004) US 6 January 2005 (06.01.2005) US

(71) Applicant and

(72) Inventor: KAIN, Aron, Z. [US/US]; 1 Jodi Court, Monsey, NY 10952 (US).

(74) Agents: HELGOTT, Samson et al.; Katten, Muchin, Zavis, Rosenman, 575 Madison Avenue, New York, NY 10022-2585 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

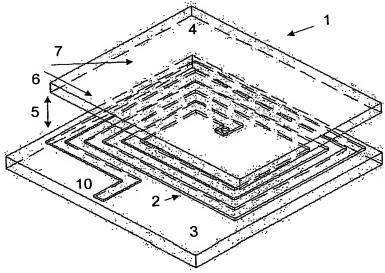
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LOAD CELL INCLUDING DISPLACEMENT TRANSDUCER, AND ASSOCIATED METHODS OF USE AND MANUFACTURE



(57) Abstract: A load cell reacts to an applied force by displacing a physical component of the load cell. An electrical component of the load cell produces an electromagnetic (EM) field in response to an applied radio frequency signal. The physical component is located in proximity to the EM field, and perturbs the EM field without physically contacting said electrical component structure. A displacement of the physical component results in a change to the perturbation of the EM field. A monitoring circuit of the load monitors an output signal that is affected by change to the perturbation of the EM field, and thereby detects the applied load.